

# **FLIGHT REPORT**

NORTH DAKOTA ATMOSPHERIC RESOURCE BOARD SFN 50864(12/2014)

Γ	ENGINES OFF	HOURS		PAGE#	OF		
	07:26:08	1.82		1	2		
ſ	ENGINES ON	DRY ICE RATE	1 GEN	2 GEN			
	05:37:01	0	0.02	0.73			
Γ	TOTAL TIME	DRY ICE (lbs)	EJCTBL (grams)	BIP (grams	s)		
	01:49:07	0.00	0	37	75		

DATE		DISTRICT	SEED#	PILOT				COPILOT					PURPOSE	R - Rain H - Hail O - Other
June 21, 2017		1	2	Steffany Royal					Dakot	tah Os	born	Н	M - Maintenance C - Reconnaissance	
Time	EVENT	LATITUDE	LONGITUDE	CLD BASE	ALTITUDE	UPDRAFT	TEMP	PRECIP	DRY ICE	FL/ EJC	ARES BIP	WINTIP	REMARKS	
(HH:MM)	#	(deg)	(deg)	(kft)	(KFT)	(FT/MIN)	(°C)	CODE**	(sec)			GEN (#)		
05:37:32		46.17075	-103.3042		2.9					0	0	0	Engines on in	Bowman.
05:47:32		46.20439	-103.2982		5.5					0	0	0		
05:54:40	1	46.22380	-103.5733	13	10.5	0	5	0		0	0	1	Left burner or	
05:55:38	2	46.21560	-103.6109	13	11.1	0	5	0		0	0	2	Right burner on.	
06:05:44		46.21974	-103.6233		11.7					0	0	2		
06:10:15		46.15907	-103.5496	13	11.9	700	0	3		0	0	2		
06:11:05	3	46.18620	-103.5297	13	11.9	800	0	3		0	1	2	BIP lit.	
06:14:54	4	46.14763	-103.4695	13	11.7	800	0	3		0	1	2	BIP lit.	
06:20:27	5	46.17037	-103.3263	13	11.8	700	0	3		0	1	2	BIP lit.	
06:24:34	6	46.13542	-103.2527	13	11.9	700	0	3		0	1	2	BIP lit.	
06:29:39	7	46.14082	-103.1468	13	11.7	700	0	4		0	1	2	BIP lit.	
06:39:28	8	46.20087	-102.8543	13	11.8	0	0	4		0	0	0	Two burners of	off.
06:56:36		46.31986	-102.6315		7.3					0	0	0		

# \*\*PRECIPITATION INTENSITY

- 0 No Precipitation
- 1 virga only, precip not to ground
- 2 rain shaft to surface, light
- 3 rain shaft well established, but can be seen through
- 4 heavy rain shaft, cannot be seen through

# MISSION SUMMARY

A strong cell was approaching the western border of D1. However, a line of cells were developing ahead of the main one- making it difficult to launch and approach the hail threat. Once a gap opened up, we launched and headed towards the storm. Consistent inflow of 700-800 feet, a lot of lightning, and high cloud bases of around 13,000 ft characterized the storm. We seeded it with both burners and 5 BIP flares. As it pushed us out of district, we chose DIK for our RTB.



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Γ	ENGINES ON	DRY ICE RATE	1 GEN	2 GEN			
	05:37:01	0	0.02	0.7	73		
Γ	TOTAL TIME	DRY ICE (lbs)	EJCTBL (grams)	BIP (grams)			
	01:49:07	0.00	0	375			

	DISTRICT	SEED#	PILOT				COPILOT					PURPOSE	R - Rain H - Hail O - Other	
2017	1	2		Steffany Royal Dakotah Osborn					Н	M - Maintenance C - Reconnaissance				
EVENT	LATITUDE	LONGITUDE	CLD BASE	ALTITUDE	UPDRAFT	ТЕМР	PRECIP	DRY ICE			WINTIP	REMARKS		
#	(deg)	(deg)	(kft)	(KFT)	(FT/MIN)	(°C)	CODE**	(sec)	EJC	DIP	GEN (#)			
	46.72993	-102.7943		4.5					0	0	0			
	46.82116	-102.8211		3.0					0	0	0			
	46.80220	-102.7998		2.5					0	0	0	Engines off in Dickinson.		
		2017 1  EVENT LATITUDE (deg)  46.72993  46.82116	2017 1 2  EVENT LATITUDE (deg) LONGITUDE (deg)  46.72993 -102.7943  46.82116 -102.8211	2017 1 2  EVENT LATITUDE (deg) CLD BASE (kft)  46.72993 -102.7943  46.82116 -102.8211	2017         1         2         Steffany           EVENT #         LATITUDE (deg)         LONGITUDE (deg)         CLD BASE (kft)         ALTITUDE (KFT)           46.72993         -102.7943         4.5           46.82116         -102.8211         3.0	2017         1         2         Steffany Royal           EVENT #         LATITUDE (deg)         LONGITUDE (deg)         CLD BASE (kft)         ALTITUDE (KFT)         UPDRAFT (FT/MIN)           46.72993         -102.7943         4.5         46.82116         -102.8211         3.0	2017         1         2         Steffany Royal           EVENT #         LATITUDE (deg)         LONGITUDE (deg)         CLD BASE (kft)         ALTITUDE (KFT)         UPDRAFT (FT/MIN)         TEMP (°C)           46.72993         -102.7943         4.5         46.82116         -102.8211         3.0	2017 1 2 Steffany Royal  EVENT LATITUDE (deg) CLD BASE (kft) UPDRAFT (FT/MIN) (°C) PRECIP (CODE**  46.72993 -102.7943 4.5 3.0	2017 1 2 Steffany Royal Dakot  EVENT LATITUDE (deg) CLD BASE (kft) CFT/MIN) PRECIP (°C) CODE**  46.72993 -102.7943 4.5 3.0 DRY ICE (sec)	2017   1   2   Steffany Royal   Dakotah Osl   EVENT	2017   1   2   Steffany Royal   Dakotah Osborn	2017   1   2   Steffany Royal   Dakotah Osborn	2017   1   2   Steffany Royal   Dakotah Osborn   H	

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